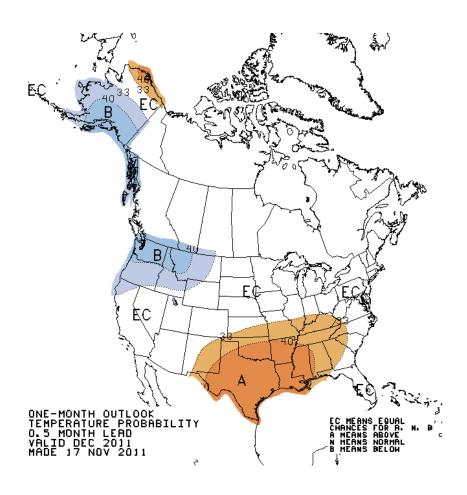
North Central United States December & December-January-February 2011-2012 Climate Prediction Center (CPC) Climate Outlook and Summary

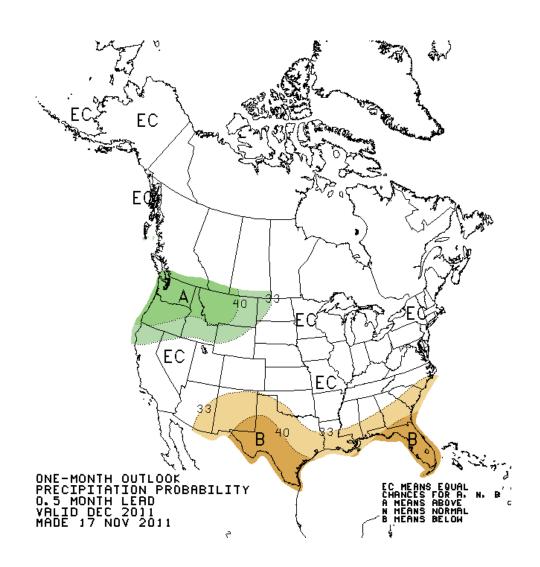
December Temperature Outlook:

The North Central United States has indeterminate chances of above-normal, near-normal, or below normal temperatures during the month of December; i.e. a 33% probability of any of the three categories occurring during the month. The reason for this large area of equal chances is because of some uncertainty in the southward extent of the colder than average conditions that are expected to develop across portions of southern Canada and the northwestern United States in association with La Nina conditions. Although a La Nina composite suggests a cold signal extends southward across the North Central United States, the statistical/dynamical tools that the CPC uses show an inconsistent signal.



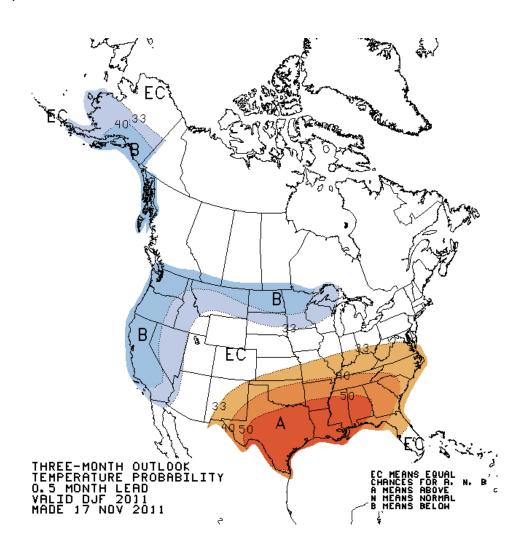
December Precipitation Outlook:

Most of the North Central United States has indeterminate chances of above-normal, near-normal and below-normal precipitation during December; or stated another way, a 33% chance of above-normal precipitation, a 33% chance of near-normal precipitation, and a 33% chance of below-normal precipitation relative to climatology. This forecast is due to lack of a consistent precipitation signal from statistical/dynamical tools the CPC utilizes. The exception will be over western North Dakota, where there will be an enhanced chance of above-normal precipitation; with a greater than 33% probability of above-normal precipitation, a 33% chance of near-normal precipitation, and a 27% to 33% chance of below-normal precipitation.



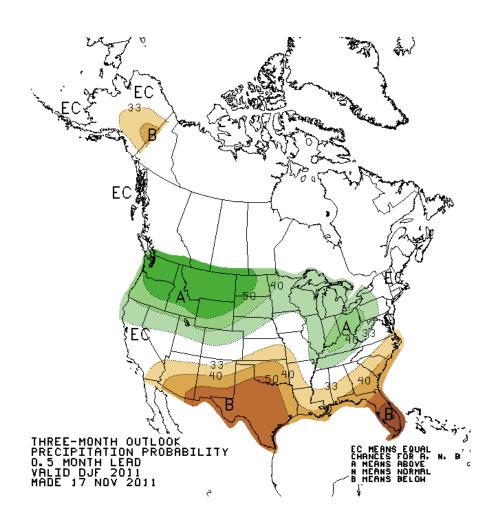
December - February Temperature Outlook:

During the meteorological winter season, enhanced probabilities for below-normal temperatures are forecast for much of the North Central United States. The best chance of below-normal temperatures relative to climatology will occur over North Dakota and northern Minnesota, where there will be a greater than 40% chance of below-normal temperatures for December through February (with a 33% chance of near-normal temperatures, and a 17% to 27% of above-normal temperatures). Northern South Dakota and southern Minnesota will have a 33% to 40% chance of temperatures colder than normal relative to climatology (with a 33% chance of temperatures near normal, and a 27% to 33% chance of temperatures warmer than normal). To the south of this area, there are indeterminate chances of above-normal, near-normal, or below-normal temperatures over southern South Dakota, Nebraska, and Iowa.



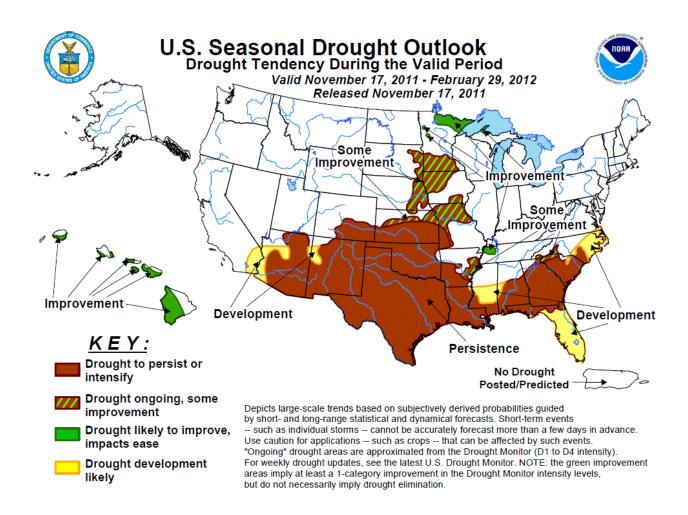
December - February Precipitation Outlook:

The majority of the North Central United States will have enhanced chances of abovenormal precipitation for the meteorological winter season of December through
February. There will be a 50% probability of above normal precipitation over western
North Dakota and northwestern South Dakota (with a 33% chance of near-normal, and
a 7% to 17% chance of below-normal precipitation relative to climatology). Through
northwestern Minnesota, eastern North Dakota, into portions of northern and western
South Dakota there will be a 40% to 50% probability of above-normal precipitation
(with a 33% chance of near-normal, and a 17% to 27% chance of below-normal
precipitation). To the south and east, there will be a 33% to 40% probability of abovenormal precipitation over the remainder of Minnesota, eastern South Dakota, and
northwestern Nebraska through the period (with a 33% chance of near-normal and a
27% to 33% chance of below-normal precipitation). Only southeastern Nebraska and
most of lowa will have indeterminate chances of above-normal, near-normal, or belownormal precipitation probabilities.



Seasonal Drought Outlook

The most recent Seasonal Drought Outlook indicates that areas that are presently experiencing drought conditions are expected to see some improvement through the winter.



Seasonal Outlook Interpretation Guide

The outlooks indicate probability of being in three specific categories in reference to the 30-year climatology from 1981-2010:

| Temperature | | Precipitation | |
|-------------------------------------|-------------------------|-----------------------------------|-------------------------|
| Social Science | Climate Science | Social Science | Climate Science |
| Uncommonly Cold | Below Normal Tercile | Uncommonly Wet | Above Normal Tercile |
| Uncommonly Warm | Above Normal Tercile | Uncommonly Dry | Below Normal Tercile |
| Moderate (Neither Warm Nor Cold) | Normal Tercile | Moderate (Neither Wet nor Dry) | Normal Tercile |

The National Weather Service Seasonal Climate Outlooks predict the probability of conditions being among the warmest/coldest or wettest/driest terciles of years compared to the period of 1981-2010:

| Precip | Temp Probability of Occurence | | | | Most likely |
|--------|-------------------------------|--|--|--|--|
| | | <u>Above</u> | <u>Near</u> | Below | category |
| | | 80.0%-90.0% 70.0%-80.0% 60.0%-70.0% 50.0%-60.0% 40.0%-50.0% 33.3%-40.0% | 16.7%-06.7% 26.7%-16.7% 33.3%-26.7% 33.3% 33.3% 33.3% | 03.3% 03.3% 06.7%-03.3% 16.7%-06.7% 26.7%-16.7% 33.3%-26.7% | "Above" "Above" |
| | | 33.3%-30.0% 30.0%-25.0% | 33.3%-40.0% 40.0%-50.0% | 33.3%-30.0% 30.0%-25.0% | 1 10011 1 101111111 |
| | | 33.3%-26.7% 26.7%-16.7% 16.7%-06.7% 06.7%-03.3% 03.3% 03.3% | 33.3% 33.3% 33.3% 33.3%-26.7% 26.7%-16.7% 16.7%-06.7% | 33.3%-40.0% 40.0%-50.0% 50.0%-60.0% 60.0%-70.0% 70.0%-80.0% 80.0%-90.0% | "Below" "Below" "Below" "Below" |
| | | 33.3% | 33.3% | 33.3% | "Equal Chances" |